Contribution ID: **19**   Type: **Contributed talk**

Turnaround radius in an accelerated universe in Einstein and in modified gravity

Friday, 29 July 2016 15:20 (15 minutes)

Summary

In an accelerating universe there is a maximum radius above
which a shell of test particles cannot collapse and is dispersed by the cosmic expansion. This
radius could be used in conjunction with observations of large structures to constrain the
equation of state of the universe. We express the turnaround radius in general relativity in terms
of the Hawking quasilocal mass
and we extend the concept to modified theories of gravity for which the gravitational slip is non-vanishing.

Primary author: FARAONI, Valerio (Bishop's University)

Presenter: FARAONI, Valerio (Bishop's University)

Session Classification: Alternatives to LambdaCDM Cosmology

Track Classification: Alternatives to LambdaCDM Cosmology